

Application No. 09/845,216
Response to 05/27/2005 Final Action

Attorney's Docket No. 0118-080

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to
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after
final
amendment
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Listing of Claims

This Listing of Claims would replace all prior listings of claims in this application.

1 - 15. (canceled)

16. (currently amended) A matched filter for obtaining a correlation between a signal received through a multipath transmission line and a spreading code sequence, comprising:

N partial filters, each partial filter having a predetermined number m of taps, that are serially connected;

first adder means for adding outputs of enabled partial filters from among the N partial filters;

control means for dividing, based on a time width of effective paths included in the received signal, the spreading code sequence into subsequences, each subsequence having $m \times n$ chips, activating n partial filters from among the N partial filters, wherein n satisfies $n \times m \times T_s \geq T_d > (n-1) \times m \times T_s$, where T_s represents a sampling period of the received signal and T_d represents a maximum delay time of the multipath signal, and detecting a partial correlation for each subsequence with the received signal by supplying the subsequences, in turn, to the n activated partial filters; and

second adder means for adding the partial correlations integrating outputs of the first adder means;

wherein N, m, and n are integers; $m \geq 2$; and $N \geq n \geq 1$.

17. (previously presented) The matched filter of claim 16, wherein the effective paths included in the received signal are determined based upon reliability information such as signal-to-noise ratio and signal-to-interference ratio of the received signal.

18. (previously presented) The matched filter of claim 16, wherein one of the effective paths is a path which is used to determine symbol timing of the received signal.

19. (previously presented) A receiver for a mobile radio communication system that uses a matched filter according to claim 16.

20. (previously presented) An arithmetic unit that operates as a matched filter according to claim 16.